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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/131,051	08/07/1998	DWIGHT D. JAMIESON	NTL-3.2.035/	7277

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GIBBONS, DEL DEO, DOLAN, GRIFFINGER & VECCHIONE
1 RIVERFRONT PLAZA
NEWARK, NJ 07102-5497

EXAMINER

KUPSTAS, TOD A

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/131,051

Applicant(s)

JAMIESON ET AL.

Examiner

Tod Kupstas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7-10 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-10, and 15-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. Claims 1-4, 7-10, and 15-22 are pending.

Request for Continued Examination

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/23/2002 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 7-10, and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rekhter et al (US 6,339,595).

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5. As set forth in claims 1,7, and 19-21, Rekhter et al discloses a virtual private network (see figs. 1 and 7) which enables private communications over a shared MPLS network (col. 34, line 40 - col. 35, line 32), between at least two private networks comprising: a first router (Fig. 1, router CE1) coupled to the shared MPLS network and configured to dynamically distribute first router VPN information (VPN ID) across the shared MPLS network, wherein the first router VPN information includes a VPN identifier which is assigned to said first router (internal VPN ID for VPN V when communicating within VPN V); a second router (figure 1, router CE2) coupled to the shared MPLS network and configured to dynamically distribute second router VPN information (VPN ID) across the shared MPLS network; wherein said second router VPN information includes a VPN identifier which is assigned to said second router (internal VPN ID for VPN V when communicating within VPN V); wherein said first and second routers are configured to establish a plurality of label switched paths therebetween (figs. 1 and 7; col. 6, line 17 - col. 7, line 22; col. 34, line 40 - col. 35, line 32), said label switched paths comprising at least two multipoint-to-point paths and further comprising at least one multi-point to multi-point path; and wherein said VPN identifier assigned to said first router (CE1) is the same as said VPN identifier assigned to said second router (CE2; both CE1 and CE2 will have the same internal VPN ID as both are routers of the VPN V network, see Figures 1 and 7).

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Official notice is taken to having multi-point-to-point path or multi point-to-multi point paths. Rekhter discloses a virtual private network which enables communications over a shared MPLS network but is silent regarding label switched paths which comprise multi point-to-point paths or multi point-to-multi point paths. However, it appears that such paths exist in the network, as Rekhter discusses both multicast and unicast situations. In addition to mentioning the existence of both label switched unicast and label switched multicast, fig. 9, discloses what appears to be a multi point-to-point path (say CE 3, to CE 1), as well as a multi-point to multi-point path (CE 1 through the service provider network). Having multi-point-to-point path or multi point-to-multi point paths are old and notorious in the art, a network has to be comprised of these network forms, when two networks overlap there will be an overlap of the forms. As set forth in claims 1,7, 19-21, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the network communication system as disclosed by Rekhter with multiple multi point-to-point paths as well as multi point-to-multi point paths as disclosed in the topology figures. The rationale is as follows: it would have been desirable to have enabled a network to be able communicate within a plurality of topologies in order to enhance the communication ability of the system. As Rekhter discloses a topology comprising both multi-point to point paths as well as multi-point to multi-point paths, one of ordinary skill in the art would have been motivated by the network topology of Rekhter to have enabled the labeled switched paths to comprise multi point-to-point paths further comprising multi point-to-multi point paths

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thereby providing the communication system of Rekhter with the ability to transfer data packets utilizing unicast as well as multicast transmissions.

As set forth in claims 2, 3, 8 and 9, Rekhter discloses a first private network adaption device which is selectively coupled to the first router and a second private network device which is selectively coupled to the second router, wherein the private network adaptation devices may communicate with one another. A private network adaptation device is interpreted to be the device coupled internally to the routers CE1 and CE2 which runs an IGP (interior gateway protocol). Examples of such protocols are OSPF and BGP (see col. 11, lines 18-33; col. 12 line 38 - col. 13, line 33).

As set forth in claims 4 and 10, Rekhter discloses a core label switched router (router PER or PER) coupled between the first (CE1) and second (CE2) routers.

As set forth in claims 15 and 16, Reckhter discloses a virtual private network wherein the first and second router employ label stacking to establish at least one of said label switched paths (col. 34, line 40 - col. 35, line 32).

As set forth in claims 17,18, and 22, Reckhter discloses a virtual private network wherein the first and second router employ best hop routing to establish at least one of said label switched paths (col. 8, line 56 - col. 9, line 22).

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Response to Arguments

Applicant argues that Rekhter does not disclose having a VPN identifier being assigned to a shared network router. Applicant states that instead Rekhter “discloses the use of a look-up table to determine where to distribute communications, as opposed to assigning VPN identifiers.” The Examiner notes that a look-up table requires the assignation of identification information for the respective network elements. Therefore the respective VPN identifier will be assigned to the respective shared network router and the process by which the VPN is identified is through the look-up table. Applicant indicates that “[n]one of the routers of Rekhter et al. require assignment of a VPN identifier for data routing purposes and thus none are so assigned. The Examiner points to col. 6, line 35-col. 7, lineh 22, these passages discuss the problem of having the same network resource being part of two different VPNs. This problem requires the proper identification of the VPN in order to route the respective data in the network.

Applicant further states that the limitation of “dynamic” is not met by the Rekhter. Applicant argues that “reliance on look-up tables to determine where to route information means that its arrangement is necessar[ily] predetermined and thus the distribution of information would be static, as opposed to dynamic.” The Examiner disagrees, first noting that newly added claim 19 does not require any limitation of “dynamic.” The Examiner further notes that Rekhter will dynamically distribute router information to the network. Rekhter will send information for the

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table to the network elements, "routers build such tables automatically by employing routing algorithms to share topological information"; see col. 8, lines 65-68. This meets the limitation of the claims.

Applicant additionally argues that the 103 rejection is impermissible as the teaching is not provided in the prior art. The Examiner disagrees noting that in Rekhter it appears that such paths exist in the network, as Rekhter discusses both multicast and unicast situations. In addition to mentioning the existence of both label switched unicast and label switched multicast, fig. 9 (topology of the network), discloses what appears to be a multi point-to-point path (say CE 3, to CE 1), as well as a multi-point to multi-point path (CE 1 through the service provider network). This disclosure provides the necessary teaching for the limitations upon which the 103 rejection based on Rekhter exists (indeed it could be argued that Rekhter is actually explicit about the existence of such paths). Furthermore, having these types of paths are required by the art. A network path must be multi-point, and when two routers interact while being part of two different networks these two types of paths must exist in a network situation. The rejection is proper.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tod Kupstas whose telephone number is (703) 305-2655.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess, can be reached at (703) 305-4792. The fax phone number for this

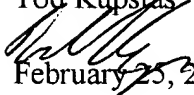
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art unit is (703) 308-7201. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology center receptionist whose telephone number is (703) 305-3900.

Tod Kupstas


February 25, 2003